

Trading

Execution: ① Quote-driven markets LOS₁ -describe
 - customers trade with dealers (dealers trade with dealers)
 - referred to as OTC (over-the-counter)

② Order-driven markets (pure auction market)
 - exchanges $\Rightarrow$ buyers/sellers submit bids/offers

Order-matching rules $\Rightarrow$ rank buy/sell orders based on:

Price precedence - best bid/sell

Display precedence - display over hidden at same price

Time precedence - first over others with same price and display properties

1000 (H)
 1000 (M)

Trading

Execution: ② Order-driven markets LOS₁ -describe

Trade pricing rules $\Rightarrow$ 1) Uniform pricing rule - same price is used for all trades (used by Call Markets)

2) Discriminatory pricing rule
 - the limit price of the order/quote that arrived first determines the trade price

e.g.		New Market	
Bid Size	Ask Size	Order to sell arrives:	
1000	300	1400 @ limit at \$10.28	10.30 300
1000	1200	300 filled at \$10.30	10.34 1200
1000	600	900 filled at \$10.28	10.32 600
1000		new standing order of 200 @ 10.28	10.28 200
1000			10.26

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Execution: ② Order-driven markets

3) Derivative Pricing Rule - use the mid-point of the bid-ask from another market

eg

10.55 - 10.63

⇒

POSIT

trades cleared at
\$10.59

③ Brokered Markets - brokers arrange trades among their clients

- usually for very thin markets (unique items)

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Information:

Pre-trade transparency

- publish real-time data about quotes and orders

- all exchanges

Post-trade transparency

- publish data about trade prices after trade occurs (most dealer markets)

- wider spreads, higher transaction costs

Well-Functioning System

LoSk

-describe

⇒ helps

- savers
- borrowers
- hedgers
- asset exchange (spot)

complete markets

- -all the assets/contracts exist to satisfy all 4

⇒ Features

- timely & accurate disclosures (supports information efficiency)
- liquidity → minimizes transaction costs (operationally efficient)
- complete markets
- External/Informational efficiency (prices respond to changes in fundamental values)
⇒ prices reflect all available information

Well-Functioning System

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⇒ needs intermediaries who:

- match buyers & sellers by organizing exchanges, brokerages, and ATS,
- provide liquidity on demand (make markets)
- create products to match buyers & sellers (ie. ABS)
- accept deposits and make loans
- provide insurance
- provide advisory services
- organize clearinghouses (settlement, counterparty)
- safeguard assets (custodial or depository services)

Well-Functioning System

LOS 1

-describe

A financial system that is

↳ Operationally efficient

is characterized by securities/assets that have

↳ Informationally efficient prices

which leads to an economy that is

↳ Allocationally efficient

Regulation

LOS 1

-describe

Confidence

- Control fraud by, or deception of, market participants
- Set minimum standards of competence for agents, define and enforce minimum standards of practice
- promote fairness
- set standards for financial reporting (fair to both user & provider)
- set minimum capital requirements for financial firms (reduce costs/disruptions of failure)
- insurance/pension funds have sufficient capital to honour their long-term commitments

Margin

Lost

- Levered Positions

- borrowing funds from your broker to buy securities
margin loan
- => interest rate -> 'call money' rate - $\frac{2.2\%}{100}$ ~~4.5%~~

- calculate
- interpret

- is - minimum ^{30%} margin requirements - initial margin
- may be set by regulation, Maintenance margin the exchange, or the clearinghouse

Leverage Ratio: $\frac{\text{Value of Position}}{\text{Value of Equity Investment}}$

$$\frac{1000 - 355}{500} = \frac{1000}{500} = 2$$

$$\text{max leverage} = \frac{1}{\text{minimum margin requirement}}$$

Margin

Lost

eg/ 100 shares of ABC @ \$30/sh on margin

Sell for \$24 @ t_1 $\leftarrow$ -20% margin

Div. received = 30¢/sh

Commission Paid = 10¢/sh

Leverage Ratio = 2

Call money rate = 6%

Total ROI?

$$\begin{array}{l} \text{Purchase } (100 \times 30) \\ + \text{Comm} \\ - \text{Margin Loan} \\ \text{Orig Inv.} \end{array} \quad \begin{array}{l} 3000 \\ 300 \\ 1500 \\ 1500 \end{array}$$

$$\begin{array}{l} \text{Sale } (100 \times 24) \\ - \text{Comm} \\ - \text{Loan} \\ - \text{Interest} \\ + \text{Dividends} \end{array} \quad \begin{array}{l} 2400 \\ (10) \\ (1500) \\ (90) \\ 30 \\ 830 \end{array}$$

$$\text{ROI} = \frac{830 - 1510}{1510} = -45\%$$

(-40%)

Margin

Lost

Initial Margin

- calculate
- interpret

Maintenance Margin $\rightarrow$ triggers margin call back up to Initial margin

- else 'forced liquidation'

$$\text{Margin Call} = P_0 \times \frac{1 - \text{Initial Margin}}{1 - \text{Maintenance Margin}}$$

eg/ $P_0 = \$60$, margin = 50%, maintenance margin = 25%

$$60 \times \frac{(1 - .5)}{(1 - .25)} = 40$$

Loan	Init. Margin
30	Loan
50%	
Max. 75%	$\frac{30}{.75} = 40$
	$\frac{\text{Init. Margin}}{(1 - \text{Main. Margin})}$

Order Types

Loss

Prices at which dealers and traders are willing to buy

Bid

Ask

Prices at which they are willing to sell

spread

400 10.55
100 10.53
200 10.51
1,000 10.49

ie. 10.55 - 10.49

best bid best ask

2.0% x 2,000
20 x 20
(100)

Execution Instructions: how an order should be filled

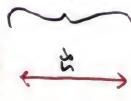
- 1) Market orders - fill immediately at best price
- guaranteed execution, no guaranteed price
- 2) Limit orders - fill at a specified price or better
- guaranteed price, no guaranteed execution

Order Types

To buy

10.70 ← limit > ask

10.65 Ask
- marketable limit order



• bid < limit < ask

- creates a new market

10.55 Bid • ← limit = bid

1000
- make the market

10.25 • ← limit < bid

- behind the market

- standing limit orders

(AON - all-or-none)

LoSg,h

- compare

- at least partially filled

- new price prints in the market

• all buy orders at this price placed earlier must execute first

- executes only if price drops

Order Types

LoSg,h

- compare

Exposure Instructions - display or hide

- hidden => only brokers & exchanges see them

- display size => lower than order

ie Buy 10,000, Limit 10.55, Display size = 500

- also called 'iceberg' order

Validity Instructions - when an order may be filled

Day - expire at end of business (default)

GTC - good-till-cancelled (max typically 6 mos)

FOK - fill-or-kill

good-on-close (market on close) execute at the close of trading

Order Types

LOSgh

Validity Instructions



Stop orders

trailing stop loss

- stop-loss (long pos) Buy @ 10, stop \$9.50
- buy-stop (short pos)

- Sell @ \$10, buy-stop @ \$10.50

Clearing Instructions - how final settlement should be arranged

- Usually the broker
- applies when using more than 1 broker
- indication of whether a sale is a long or short sale

Primary vs. Secondary

LOSi

- define
- explain

Primary

Issuer $\rightarrow$ Investor

$\hookrightarrow$ first time $\Rightarrow$ IPO

$\hookrightarrow$ follow up $\Rightarrow$ secondary offering

Secondary

Investor $\longleftrightarrow$ Investor

- provide liquidity, ensures an efficient primary market

- sets price for secondary offerings

Primary vs. Secondary

Loss:

- define
- explain

Primary Public Offering

Company $\rightarrow$ Investment $\rightarrow$ Investors
Bank

- lines up subscribers (hook building)

- may be done as

① Underwriting offer

- buys the entire issue at a negotiated offering price

- sell on the IPO "bought deal"

- makes the spread

Private Placements

 $\frac{E}{\rho}$

- securities not offered to the public
- placed with qualified investors

Trading

LOS³

- describe

Buyers $\rightarrow$ must be able

- at low cost

Q: when can they trade?

who arranges the trade?

how do they execute the trade?

how do they learn about price?

When?

Call Market: trades occur only at particular times and

Vs. Treasury

- all bids and asks are balanced to

determine one price (ie quantity bid for = quantity offered)

-all trades occur at this price

- many continuous trading markets find their opening price by this method



Trading

LOS₁
-describe

Call Market: -very liquid in session
-illiquid otherwise

Continuous Markets: trades can be arranged and executed
anytime the market is open

Who:

Call - auction process

Continuous - auction process or dealer bid-ask quotes
(eg. stock exchanges)

Execution:

① Quote-driven markets (price-driven or dealer market)
- individual dealers 'make a market'

in specific securities

↳ means they are willing
to buy and sell